



# Lawrence Livermore National Laboratory

March 3, 2009

Dear SciDAC Reviewer,

This letter is to express support for the Visualization and Analytics Center for Enabling Technologies (VACET) for their role in the development of the visualization and analysis tool VisIt. VisIt's primary role is to process the extremely large data sets made by simulation codes on massively parallel machines, so VACET's contributions to improving VisIt to work better on large data sets is much appreciated.

VACET's major development efforts have been great successes and have contributed greatly to the VisIt project as a whole. The parallel streamline algorithms they developed are cutting edge and filled what was previously a weak spot in VisIt. These algorithms have gone on to be used by customers outside the Office of Science and we often use this work as an example for the benefits of partnering on VisIt development. The work using accelerated queries with the FastBit library adds on to our existing investments in processing large data and demonstrates how well aligned VACET development is with VisIt's identity. Of course, there have been many, many other enhancements, bug fixes, porting fixes, and infrastructural work that have benefited users of VisIt all over the world. (VisIt has been downloaded more than 100,000 times.)

Another major contribution by VACET has been to make VisIt appear more like an open source project. Previous to VACET, Lawrence Livermore computer scientists served as the primary VisIt developers with the NNSA comprising the majority of the tool's customer base. When VACET was funded, they immediately began changing our project's culture to be more "friendly" to new developers. We now have a publicly available repository, Wikis, open mailing lists that are archived and other trappings of open source projects. These changes, the majority of which were done directly by VACET developers, have in turn led to more partnerships, including a partnership with the Office of Nuclear Energy, universities, and foreign laboratories. Without VACET, these developments were much less likely.

In summary, let me again state that VACET has provided a significant boost to our project and they are enabling new features for many users. In addition to being the general VisIt project lead, I also lead the NNSA VisIt efforts and I believe that VACET development provides significant leverage to the NNSA efforts.

Best regards,

A handwritten signature in black ink that reads "Eric Brugger".

Eric Brugger  
VisIt project leader



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